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Ann Marie Alaniz
Typed or Printed Name

Attached are the following pages:

- Response to Notification of Non-Compliant Appeal Brief [3 pages].

| | | | |
|---------------------|--|--------------------------|------------------------|
| Applicant: | <u>Paul Marie AYOUB</u> | Group Art Unit: | <u>1764</u> |
| Serial No.: | <u>10/772,023</u> | Examiner: | <u>John C. Douglas</u> |
| Filing Date: | <u>02/04/2004</u> | Atty. Docket No.: | <u>TH2229 (US)</u> |
| Title: | <u>Methods of Preparing Branched Alkyl Aromatic Hydrocarbons</u> | | |

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**BOARD OF PATENT APPEALS AND INTERFERENCES
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | |
|-------------------------|---|----------------------------|
| In re Application of: | § | Group Art Unit: 1764 |
| Paul Marie Ayoub | § | |
| | § | |
| Serial No.: | § | |
| 10/772,023 | § | |
| | § | Examiner: John Christopher |
| | § | Douglas |
| Filed: | § | |
| February 4, 2004 | § | |
| | § | |
| For: | § | |
| Methods of Preparing | § | |
| Branched Alkyl Aromatic | § | |
| Hydrocarbons | § | Atty. Docket: SHELL-TH2229 |

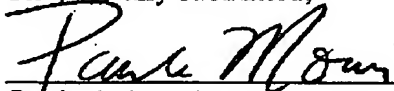
**SUBMISSION OF REVISED
SUMMARY OF CLAIMED SUBJECT MATTER
IN RESPONSE TO NOTIFICATION
OF NON-COMPLIANT APPEAL BRIEF**

Commissioner for Patents
PO BOX 1450
Alexandria, VA 22313-1450

In response to the Notification of Non-Compliant Appeal Brief (37 CFR 41.37), Applicant hereby submits the following Revised Summary of the Claimed Subject Matter under MPEP 1205.03(B).

Dated: July 30, 2007

Respectfully submitted,



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REVISED SUMMARY OF THE CLAIMED SUBJECT MATTER

The present application provides a method for producing alkylated aromatics that produce surfactants having excellent biodegradability and detergency at reduced production costs. The method comprises isomerizing a first hydrocarbon stream comprising olefins and paraffins (specification, p. 3, ll. 7-27), alkylating aromatics with a "second hydrocarbon stream" produced from the isomerization (specification, p. 3, l. 29-p. 4, l. 21), and dehydrogenating paraffins in the alkyl aromatic hydrocarbons stream *after alkylation and before isomerization*. See specification, p. 3, l. 23 - p. 4, l. 5 and claim 1.

The following is a concise explanation of the subject matter defined in independent claim 1, which is the only independent claim on appeal, referring to the specification by page and line numbers and to the drawings, of if any:

Isomerization

A method for the production of alkyl aromatic hydrocarbons, comprising:

introducing a first hydrocarbon stream comprising olefins and paraffins into an isomerization unit, wherein the isomerization unit is configured to isomerize at least a portion of linear olefins in the first hydrocarbon stream to branched olefins (specification, p. 3, ll. 7-27), and wherein at least a portion of the unreacted components of the first hydrocarbon stream and at least a portion of the produced branched olefins form a second hydrocarbon stream (specification, p. 3, l. 29-p. 4, l. 21) (*See also* p. 15, ll. 11-p.20, l. 27);

Alkylation

introducing at least a portion of the second hydrocarbon stream and aromatic hydrocarbons into an alkylation unit, wherein the alkylation unit is configured to alkylate at least a portion of the aromatic hydrocarbons with at least a portion of the olefins in the second hydrocarbon stream to produce alkyl aromatic hydrocarbons (specification, p. 3, l. 29-p. 4, l. 11), wherein at least a portion of the produced alkyl aromatic hydrocarbons comprise a branched alkyl group, and wherein at least a portion of the unreacted components of the second hydrocarbon stream, at least a portion of the aromatic hydrocarbons and at least a portion of the produced alkyl aromatic hydrocarbons form an alkylation reaction stream (specification, p. 4, ll. 11-14) ;

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separating alkyl aromatic hydrocarbons from the alkylation reaction stream to produce an unreacted hydrocarbons stream and an alkyl aromatic hydrocarbons stream (specification, p. 4, ll. 16-18); the unreacted hydrocarbons stream comprising at least a portion of the unreacted components of the second hydrocarbon stream and aromatic hydrocarbons ;

separating at least a portion of the paraffins and at least a portion of the olefins from the unreacted hydrocarbons stream to produce an aromatic hydrocarbons stream and a paraffins and unreacted olefins stream (specification, p. 4, ll. 18-21)(See also p. 20, l. 27 -p.28, l. 14); and

Dehydrogenation

introducing at least a portion of the paraffins and unreacted olefins stream into a dehydrogenation unit, wherein the dehydrogenation unit is configured to dehydrogenate at least a portion of paraffins in the paraffins and unreacted olefins stream to produce olefins, and wherein at least a portion of the produced olefins exit the dehydrogenation unit to form an olefinic hydrocarbon stream (specification, p. 4, ll. 23-29, and p. 28, l. 16-p. 30, l. 15); and

Recycle

introducing at least a portion of the olefinic hydrocarbon stream into the isomerization unit (specification, p. 4, ll. 27-29 and p. 30, l. 16 - p. 31, l. 29).

The citations in the foregoing explanation are not exhaustive. The specification includes additional information about the claimed element or limitation.